ABSTRACT OF THE DISCLOSURE

Map data are managed by use of map file names representing given areas. In each map file name, the first character denotes a map structure code; the second character represents a zoom level for a zoom-in or zoom-out operation of the map on display; and the third through the fifth character stand for an X-direction unit code and the sixth through the eighth character for a Y-direction unit code, indicating where the map in question is located on the same zoom level. The eight-byte file name plus a three-byte extension constitutes each map file name. Furthermore, map data are managed by use of floor file names representing floors in buildings. In each floor file name, the first through the third character denote a building ID code; the fourth and the fifth character represent a floor code for identifying a floor inside the building; the sixth character code stands for a zoom level for a zoom-in or zoom-out operation of the displayed floor map; and the seventh and the eighth character represent an X- and a Y-direction unit code respectively, indicating where the floor map in question is located on the same zoom level. The eight-byte file name plus a three-byte extension constitutes each floor file name.